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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
HOLLIDAY, JAIME MICHELE	
ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/780,798	BACKES, FLOYD	
	Examiner	Art Unit	
	Jaime M. Holliday	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3* is/are pending in the application.

4a) Of the above claim(s) *3* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

Response to Arguments

Applicant's arguments with respect to **claims 1 and 2** have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of **Kallio (US 2004/0014422 A1)** and **Nakamura et al. (US 6,157,626)** in view of **Zhang et al. (US 2002/0145968 A1)**, and in further view of **Feder et al. (US 6,522,881 B1)**.

Consider **claim 1**, Kallio clearly shows and discloses a system for handovers implemented in a Bluetooth environment, which defines a short-range radio network, reading on the claimed "radio control protocol," (paragraphs 4 and 13). Kallio further discloses a system that enables terminal devices to efficiently transition from a first access point to a second access point based on service discovery information that is transmitted by the second access point. The current access point establishes a link with the terminal device; sends service description data to the terminal device; and authenticates the link with the second access point using a group key based on the service description data, reading on the claimed "radio control protocol for use by devices in a wireless communications

environment wherein multiple channels are available for communication," (paragraphs 13 and 15), comprising: a terminal device **402** enters a page scan state, where it awaits one or more paging messages. An access point **406** also enters a paging mode and transmits one or more paging packets. These paging packets each include an identification number based on the address of terminal device. Meanwhile, during this step, the terminal device, which is in page scan mode, responds to the paging packets by transmitting a packet that includes its address, reading on the claimed "transmission of channel claim messages by ones of a plurality of fixed location wireless devices operable to provide network access, exchange, each channel claim message being indicative of an intent to utilize a channel for communications with associated mobile wireless terminal devices at some subsequent point in time, wherein each fixed location device uses the claim messages it sends and receives to select a channel on which to communicate; association auction including transmission of an association bid message from a mobile wireless terminal device to a particular fixed location device, the bid message being a request to communicate in the wireless communications environment via the particular fixed location device," (figures 8 and 10, paragraphs 134-135); an access point receives this packet from terminal device. In response, access point transmits a frequency hop synchronization (FHS) packet. The FHS packet is used to pass information that allows terminal device to synchronize with the frequency hopping sequence of access point. Upon receipt of this FHS packet, terminal device transmits a further packet to

confirm receipt of the FHS packet. Both terminal device and access point enter into the connection state at this point, reading on the claimed "transmission of an accept message by the particular fixed location device in response to the bid message, the accept message indicating that the particular fixed location device will allow the wireless terminal device which transmitted the bid message to communicate in the wireless communications environment via the particular fixed location device, and wherein the particular fixed location device does not send an accept message to the wireless terminal device which transmitted the bid message if the particular fixed location device determines to not accept the request to associate," (figures 8 and 10, paragraphs 134-135).

However, Kallio does not specifically disclose an exchange of messages prior to the packets sent during the page scan, which would read on the "announce messages."

In the same field of endeavor, Nakamura et al. clearly show and disclose a cell selection scheme wherein each base station transmits a perch channel which is spread by using a spread code assigned to each base station, reading on the claimed "presence announce message," and a mobile station receives more than one perch channel from more than one base station, (abstract). The perch channel transmission attenuation value is calculated for each one of a plurality of received perch channels, (col. 4 lines 63-65). Control unit **35** extracts the perch channel transmission power information contained in the decoded signal, and notifies this received perch channel transmission power information and a perch

channel spread code identification number to the transmission attenuation calculation unit **37**. The transmission attenuation calculation unit calculates the perch channel transmission attenuation value according to the measured perch channel receiving level value and the received perch channel transmission power information supplied from the control unit, reading on the claimed "transmission of presence announce messages by the fixed location devices, the announce messages being indicative of presence of the transmitting device, magnitude of power attenuation by transmitting device, and protocol capability of the transmitting device," (col. 5 lines 28-34). After the completion of the perch channel transmission, attenuation calculation for the last perch channel is received from the transmission attenuation calculation unit, the control unit commands the located cell judgement unit **38** to make the located cell Judgement. In response, the located cell Judgement unit makes accesses to the calculation result memory **40**, selects one perch channel transmission attenuation value calculation result which has the smallest value among a plurality of perch channel transmission attenuation value calculation results stored in the calculation result memory, and reads out the perch channel spread code identification number corresponding to the selected perch channel transmission attenuation value calculation result from the calculation result memory. The located cell Judgement unit then Judges a cell of a base station which transmitted the perch channel corresponding to this read out perch channel spread code identification number as a located cell, and notifies this

read out perch channel spread code identification number to the control unit as a judgement result. The control unit then carries out the subsequent control based on the cell judgement result by regarding a cell of a base station which transmitted the perch channel corresponding to the notified perch channel spread code identification number as the located cell, reading on the claimed "wherein a decision to send a bid message is based at least in-part on an indication that the receiving device is capable of providing better service as a function of magnitude of power attenuation by the particular fixed location device," (col. 5 line48- col. 6 line 5).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to transmit perch channels which are used to calculate transmission attenuation as taught by Nakamura et al. in the system of Kallio in order to make handovers more efficient (paragraph 14).

However, Kallio, as modified by Nakamura et al., does not specifically disclose that the power is intentionally attenuated at the transmitter.

In the same field of endeavor, Zhang et al. clearly show and disclose a method of controlling the transmitting power level of a transmitter in an orthogonal frequency division modulation (OFDM)-based fixed/mobile wireless system. The method comprises measuring or detecting the power level of received pilot tones transmitted over at least one sub-channel of an OFDM transmission; determining pathloss according to received power level of pilot tones; and controlling transmit power level of the transmitter by adjusting the

power level or channel attenuation according to the pathloss determined in the preceding step. Optionally, the method may further comprise monitoring at a base station the received signal level of uplink pilot tones; checking if received signal level of uplink pilot tones is outside pre-set limits around the target level at the start of a call; and sending a command to a mobile station over a broadcast channel to increase or decrease the transmitting power level, reading on the claimed "messages being indicative of magnitude of intentional transmitter power attenuation by the transmitting device," (paragraph 8).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to adjust power level or channel attenuation based on received signals as taught by Zhang et al. in the system of Kallio, as modified by Nakamura et al., in order to control transmit power.

However, the combination of Kallio and Nakamura et al., as modified by Zhang et al., does not specifically disclose that the paging packets are transmitted, because the terminal device has an indication that the access point is capable of providing better service.

In the same field of endeavor, Feder et al. clearly show and disclose a method and apparatus for use in a wireless communications network that searches for the best serving access point of a base station as a function of communication quality. Each base station **200** includes five access points (AP) that are assigned a different 1MHz channel, reading on the claimed "devices in a wireless communications environment wherein multiple channels are available

for communication," (abstract, column 4 lines 6-11). A wireless modem **270** in a fixed wireless network executes an AP search/selection sequence in response to a triggering event, such as when service quality degrades below a threshold level. After detecting beacons and obtaining a communication link quality metric for each neighboring access point, the wireless modem selects the best access point based on the communication link quality metric, reading on the claimed "a decision to send a bid message is based at least in-part on an indication that the receiving device is capable of providing better service," (column 2 lines 59-63, column 3 lines 6-10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to select an access point with the best communication link quality as taught by Feder et al. in the system of Kallio and Nakamura et al., as modified by Zhang et al., in order to efficiently complete a transition or handover.

2. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of **Kallio (US 2004/0014422 A1)**, **Nakamura et al. (US 6,157,626)** and **Zhang et al. (US 2002/0145968 A1)** in view of **Feder et al. (US 6,522,881 B1)**, and in further view of **Idnani et al. (US 2004/0121765 A1)**.

Consider **claim 2**, and **as applied to claim 1 above**, the combination of Kallio and Nakamura et al., as modified by Zhang et al. and Feder et al., clearly

shows and discloses the claimed invention except that a registration request message and its acknowledgement are transmitted.

In the same field of endeavor, Idnani et al. clearly show and disclose a Session Initiation Protocol (SIP) proxy user agent (UA) to serve as a gateway between a SIP core network and a SIP-unaware mobile. A new message is described, a combined registration and event subscription message, which is used by SIP proxy UAs to both register a new contact address for a mobile and to subscribe to the mobile's contact information. When mobile station (MS) **101** begins obtaining service from base station (BS) **111** it sends a registration request message to SIP component **120**. This registration request message **202** is not a SIP message, but rather a registration message in accordance with the wireless protocol utilized by MS. The registration request message is received by SIP proxy UA **123**, via the wireless network interface **121**. Acting as a proxy user agent for the mobile station, SIP proxy UA then sends a combined registration and event subscription message for MS 101 to SIP registrar/presence server **130**. Proxy UAs are responsible for translating the call control messaging between SIP and the appropriate wireless protocol, reading on the claimed "exchange of registration request messages between devices, wherein a sending device sends a registration request message to a receiving device to indicate that the sending device desires to communicate in the wireless communications environment via the receiving device using the radio control protocol," (figures 1 and 2, paragraphs 8, 14-15); In response to the message,

SIP registrar sends SIP OK message to SIP proxy UA, reading on the claimed "exchange of registration acknowledge messages between wireless devices, wherein a sending device sends a registration acknowledge message to a receiving device in response to a registration request message, to indicate that the sending device understands that the receiving device will communicate in the wireless communications environment using the radio control protocol," (figures 1 and 2, paragraph 30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to register, via a proxy, to a server as taught by Idnani et al. in the system of Kallio and Nakamura et al., as modified by Zhang et al. and Feder et al., in order to efficiently complete a transition or handover.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaime M. Holliday whose telephone number is (571) 272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jaime Holliday
Patent Examiner

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER